# Annual Report

for the fiscal year ended March 31, 1987

Manitoba Data Services

# Manitoba

**Minister of**
**Employment Services**
**and Economic Security**

Room 357
Legislative Building
Winnipeg, Manitoba, CANADA
R3C 0V8

October 1, 1987

The Honourable George Johnson
Lieutenant Governor of the Province of Manitoba

Sir:

I have the honour of respectfully submitting to you the Annual Report of Manitoba Data Services for the fiscal year ended March 31, 1987.

LEN EVANS
Minister Responsible for
Manitoba Data Services

**Manitoba Data Services**
10th FLOOR 215 GARRY STREET, WINNIPEG, MANITOBA R3C 3P3 PHONE (204) 956-0760

September 21, 1987

The Honourable Leonard S. Evans
Minister Responsible for Manitoba Data Services
Legislative Building
Winnipeg, Manitoba

Dear Sir:

In accordance with the Manitoba Data Services Act, I am pleased to present the Annual Report for Manitoba Data Services for the fiscal year ended March 31, 1987.

Yours truly

R. M. SILVER
Chairperson
Manitoba Data Services

# Manitoba Data Services

# 12th ANNUAL REPORT

For the fiscal year ended March 31, 1987

## Business Purpose

The Manitoba Data Services Act states that:

"The aim and object of the Commission is to provide and maintain computer and data processing services available to the government, government agencies and government supported institutions and, subject to this act, other persons".

This aim and object has been further developed by the Executive and Board into a number of mission statements that collectively define the business purpose of Manitoba Data Services.

- To provide computer related products and services to the Manitoba public sector.
- To be financially self-sufficient.
- To establish technical expertise and competence which will provide leadership and direction to the Manitoba Government in computer technology and will develop a reputation comparable to successful similar enterprises in Canada.
- To offer computer related products and services which facilitate the achievement of productivity gains by its clients.
- To make available efficient and effective computer services throughout Manitoba as is economically feasible.
- To operate a business that provides a source of high technology employment in Manitoba.
- To make available computer related services which might otherwise be provided from outside of Manitoba.

## Contents


| | |
|---|---|
| Letters of Transmittal | 1 |
| Report of The President and General Manager | 4 |
| Board of Commissioners | 6 |
| Executive Officers | 7 |
| Provincial Auditor's Report | 8 |
| Financial Statements | 9 |
| Manitoba Data Services in Review | 15 |


## Highlights

OPERATIONAL:

- Hierarchical Storage Manager installed
- Concordia General Hospital ADT System installed
- Rate Reductions of 7.5% and 5% announced
- Online Transactions grew from 4 million per month to 8 million
- Geographic-Based Information System trial conducted

FINANCIAL

| | |
|---|---|
| • Total revenues | $24 814 000 |
| • Total expenditures | $20 960 000 |
| • Net income | $ 3 854 000 |
| • Retained Earnings | $ 5 538 000 |

## Outlook

- New Health Care Initiatives anticipated
- UNISYS A12 Computer Installation planned
- Further Expansion of Computing Capacity planned
- Improved Network Access

# Report of the President and General Manager

In the fiscal year ended March 31st, 1987 Manitoba Data Services experienced a marked increase in business volumes. This is reflected in a 30.3% increase in revenue compared to that reported in the previous fiscal year. This increase is more significant in consideration that reductions in service charges were instituted during the year. Effective October 1, 1986 a change was announced to the schedule of rates which resulted in an average cost reduction to clients of 7.5%. In addition, clients realized further savings as a result of the institution of a more efficient data management system which became fully operational in November, 1986. This new procedure based on the Hierarchical Storage Management System has yielded a further cost reduction averaging 3.5% across the client base. Despite these pricing actions net revenues approaching $4 million were realized in 1987. This compares to the slightly in excess of $1 million reported in 1986. This continuing strong financial position enabled the Commission to consider further reductions to its rates. Consequently in January 1987 a further 5% rate reduction was announced effective April 1, 1987. This latest in a series of rate reductions which began in 1981 has yielded a 49% cumulative decrease in the rates charged.

The growth in Manitoba Data Services business is further demonstrated by the dramatic increase in the number of online transactions processed. By March of 1987 the number of transactions processed each month had grown to over 8 million from a level of 4 million the previous year. Similar growth was experienced in the time sharing service component which also grew by more than 100% over this same period.

To support this growth in service demand and to continue to ensure the levels of service support appropriate to the needs of its clients an upgrade of the installed computing capacity was undertaken early in the year. In April 1986 the installed IBM 3084 computer was replaced by an IBM 3090-200 system. This brought the total computing capacity installed to two IBM 3090-200's.

Manitoba Data Services continued its thrust to service the health care sector. During the year the third hospital supported under the Patient Management System was instituted when Concordia Hospital became operational with the conversion of its manual admissions, discharge and transfer process to a fully automated system. Following the Provincial Government's agreement with Unisys for the institution of a major initiative in the provision of health care service in Manitoba, Manitoba Data Services proposed that it provide the central site service in support of this program. Upon acceptance of this proposal in the latter part of the year work commenced on the planning for the installation and ongoing management of a Unisys model A12 computer system. The initial thrust for this new facility will be to provide computer support

services to the Unisys Health Care Application Development Centre which will be established in Winnipeg. Additionally, Manitoba Data Services will make available Unisys based products and services in support of the needs of the Manitoba Health sector.

To provide for the office system support needs of its clients Manitoba Data Services adopted IBM's Distributed Office Support System (DISOSS). Previously Manitoba Hydro had trialed this offering at approximately fifty work areas within its widely dispersed business operation. Based on the success of this trial Manitoba Hydro committed to the use of DISOSS as its office system support product in the fall of 1986. During the year further DISOSS trials have been initiated by other prospective users of this service.

During 1986 the Commission embarked on a new business initiative which is being jointly undertaken with the Manitoba Telephone System, City of Winnipeg and a number of Provincial Government departments. In cooperation with IBM, this venture entails testing an advanced geographic based information system to establish the potential benefit which can be realized through a land based information system shared amongst a variety of agencies. Early results have been highly encouraging in this trial which is planned to continue through 1987.

During the year a number of changes to the Manitoba Data Services Board of Commissioners were announced by the Honourable Len Evans, Minister Responsible for Manitoba Data Services. Mr. Dave Olinyk, Director, Earth Sciences, Trident International was appointed a commissioner in August, 1986. With the retirement of Mr. Glover Anderson and his subsequent resignation from the Board of Commissioners following many years of service to Manitoba Data Services, Mr. Dennis Wardrop, Executive Vice President, Manitoba Telephone System was named to the Board. The support and guidance of the Board of Commissioners continues to be instrumental in the success that has been achieved by Manitoba Data Services since its formation in 1975.

The skill and dedication of all of the employees of Manitoba Data Services is, of course, fundamental to the success of the business and is gratefully acknowledged.

C. J. Chalmers

# Manitoba Data Services Board of Commissioners

+ Member of the Audit Committee
* Member of the Hardware Acquisition Sub-Committee

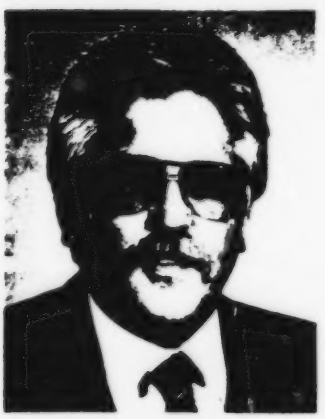
Chairperson
ROBERT M. SILVER
President and General Manager
Manitoba Public Insurance Corporation

MICHAEL S. DOYLE*
Vice Chairperson
Professor of Computer Science
University of Manitoba

R. MURRAY FRASER+
Executive Vice President
Corporate Services Manitoba Hydro

DONNA L. MARK
Problem Coordinator
Manitoba Data Services

DAVE M. OLINYK*
Director, Earth Sciences
Trident International, Inc

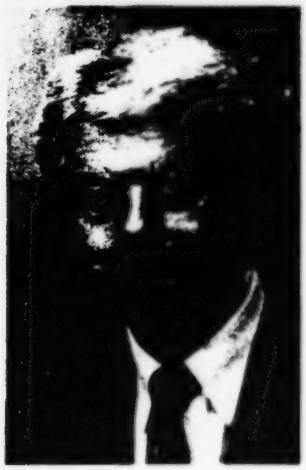


BRUCE PERESKY
Computer Operator II
Manitoba Data Services

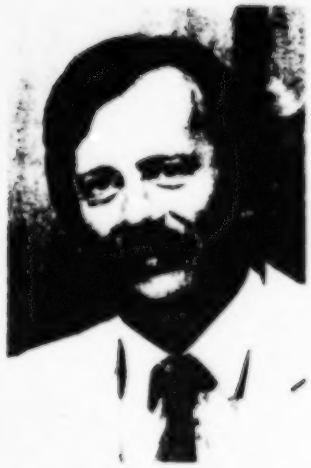
DENNIS H. WARDROP
Vice-President
Corporate Development and Marketing
Manitoba Telephone System

C. J. CHALMERS
President and General Manager

W. G. EAMER
Vice-President
Corporate Services



J. JONES
Vice-President
Client Support Services



N. H. SHAKESPEARE
Vice-President
Operations Support Services

## Corporate Profile

Manitoba Data Services (MDS) is a commission of the Province of Manitoba, operating as a service bureau providing computer services and products to government departments, agencies, crown corporations and other government supported institutions.

MDS reports to the Province of Manitoba through a Board of Commissioners and the Cabinet Minister responsible for the Commission.

The President and General Manager and three Vice Presidents form the executive of MDS, reporting to the Board of Commissioners.

The Operations Support Services Division is responsible for the installation, maintenance and management of installed hardware and system software. Client Support Services Division provides consulting services and assistance to clients in planning their data processing needs plus problem resolution management when difficulties are encountered. Corporate Services Division provides the administrative, accounting and human resources support necessary to a large corporation.

MDS has provided data processing services to the Province of Manitoba since 1959, initially as a Branch of the Department of Finance. In 1975, MDS was formed as a subsidiary of the Manitoba Telephone System, and in 1979, by an act of the Legislature of the Province of Manitoba, MDS was established as an independent Commission.

As a supplier of data processing to the Province of Manitoba, MDS serves all government departments, Crown Corporations and agencies, including the Manitoba Telephone System, Manitoba Hydro, the Manitoba Health Services Commission, the Manitoba Public Insurance Corporation, and the Workers Compensation Board. In addition, MDS also provides access to driver and vehicle information to the City of Winnipeg Police Department, the Brandon City Police Department and RCMP Detachments in Manitoba.

Since inception, MDS has continued to expand its service capability consistent with new developments in the data processing industry and relative to its clients' needs.

MDS is currently operating under Multiple Virtual Storage — XA (MVS/XA) with Job Entry Subsystem type 3 (JES3) on two IBM 3090 model 200 Central Processing Units.

Manitoba

MANITOBA DATA SERVICES
REPORT OF THE PROVINCIAL AUDITOR'S OFFICE

We have examined the statement of financial position of Manitoba Data Services as at March 31, 1987 and the statements of operations, retained earnings and changes in cash resources for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances.

In our opinion, these financial statements present fairly the financial position of Manitoba Data Services as at March 31, 1987 and the results of its operations and the changes in its cash resources for the year then ended in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

F. H. JACKSON, C.A.
Provincial Auditor

September 9, 1987.
Winnipeg, Manitoba

# Manitoba Data Services

## Management Report

Management is responsible to the Board of Commissioners for the financial statements of the Commission which have been prepared in accordance with generally accepted accounting principles. Financial information presented elsewhere in this Annual Report is consistent with that contained in the financial statements.

The Commission maintains a system of internal control which provides management with reasonable assurance that client data and other assets are safeguarded and that reliable operating and financial records are maintained. This system includes written policies and procedures combined with an organizational structure which provides for appropriate delegation of authority and segregation of responsibilities. The Commission has also instituted policies and guidelines which require employees to maintain the highest of ethical standards.

The Provincial Auditor, whose report based upon an examination of the financial statements is enclosed, also reviews the Commission's system of internal control in accordance with generally accepted auditing standards for the purpose of expressing an opinion on the financial statements.

The Board of Commissioners has reviewed and approved these financial statements. To assist the Board in meeting its responsibility, it has appointed an Audit Committee which meets with management and with the Provincial Auditor jointly and separately, to review audit, financial reporting and related matters.

C. J. CHALMERS
President and
General Manager

W. G. EAMER, C.A.
Vice-President
Corporate Services

## Statement of Operations

| Year ended March 31, in thousands of dollars | 1987 | 1986 |
|---|---|---|
| REVENUES | | |
| Data processing | **$23 936** | $18 170 |
| Interest income | **591** | 641 |
| Miscellaneous (Note 3) | **287** | 418 |
| | **24 814** | 19 229 |
| EXPENSES | | |
| Salaries and administration | **9 680** | 9 008 |
| Computer equipment and software — rental and maintenance | **5 562** | 6 261 |
| Depreciation and amortization | **3 783** | 1 459 |
| Pension and vested sick leave (Note 4) | **853** | 763 |
| Interest | | |
| — Government of the Province of Manitoba (Note 5) | **375** | 645 |
| — Capital equipment leases | **721** | 46 |
| Loss (Gain) on disposal of computer equipment | **( 14)** | ( 6) |
| | **20 960** | 18 176 |
| NET EARNINGS | **$ 3 854** | $ 1 053 |

The accompanying notes are an integral part of these statements.

# Manitoba Data Services

## Statement of Financial Position

ASSETS

| At March 31, in thousands of dollars | 1987 | 1986 |
|---|---|---|
| CURRENT ASSETS | | |
| Cash | $ 340 | $ 64 |
| Accounts receivable | 4 245 | 4 382 |
| Undesignated short-term deposits with the Minister of Finance, Government of the Province of Manitoba, at cost | 2 546 | 565 |
| Prepaid expenses | 91 | 60 |
| | 7 222 | 5 071 |
| FIXED ASSETS (Note 6) | 13 104 | 10 317 |
| OTHER ASSETS | | |
| Proprietary software | 2 797 | 1 680 |
| Less accumulated amortization | 1 299 | 950 |
| | 1 498 | 730 |
| Long-term accounts receivable (Note 8) | 33 | 213 |
| Short-term deposits with the Minister of Finance, Government of the Province of Manitoba, at cost, designated to fund pension liability (Note 4) | 4 454 | 3 735 |
| | 5 985 | 4 678 |
| | $26 311 | $20 066 |

*LIABILITIES AND RETAINED EARNINGS*

| | | |
|---|---|---|
| CURRENT LIABILITIES | | |
| Accounts payable | $ 705 | $ 1 010 |
| Principal due within one year on advance from the Government of the Province of Manitoba | 29 | 1 493 |
| Principal due within one year on capital equipment leases | 1 691 | 1 009 |
| | 2 425 | 3 512 |
| LONG-TERM LIABILITIES | | |
| Pension and vested sick leave (Note 4) | 4 940 | 4 136 |
| Advance from the Government of the Province of Manitoba (Note 5) | 1 633 | 3 602 |
| Capital equipment leases (Note 7) | 6 687 | 7 132 |
| Health-care initiative program equipment (Note 9) | 5 088 | — |
| | 18 348 | 14 870 |
| RETAINED EARNINGS | 5 538 | 1 684 |
| | $26 311 | $20 066 |

The accompanying notes are an integral part of these statements.

Approved on behalf of the board
September 21, 1987

R. M. Silver
Chairperson

R. M. Fraser
Member

# Manitoba Data Services

## Statement of Retained Earnings

| Year ended March 31, in thousands of dollars | 1987 | 1986 |
|---|---|---|
| RETAINED EARNINGS — BEGINNING OF YEAR | **$ 1 684** | $ 631 |
| NET EARNINGS | **3 854** | 1 053 |
| RETAINED EARNINGS — END OF YEAR | **$ 5 538** | $ 1 684 |

## Statement of Changes in Cash Resources

| Year ended March 31, in thousands of dollars | 1987 | 1986 |
|---|---|---|
| OPERATIONS | | |
| Receipts | | |
| Data processing and miscellaneous | **$24 550** | $18 281 |
| Interest income | **581** | 649 |
| Disbursements | | |
| Salaries and administration, computer equipment and software | **(15 457)** | (14 805) |
| Interest | **( 1 083)** | ( 691) |
| Cash provided by operations | **8 591** | 3 434 |
| FINANCING | | |
| Health-care initiative program equipment (Note 9) | **5 088** | — |
| Capital leases — Acquisition | **1 328** | 8 168 |
| — Repayment | **( 1 226)** | ( 38) |
| Repayment of advance from the Government of the Province of Manitoba | **( 3 432)** | ( 1 356) |
| Payments charged to pension and vested sick leave liability | **( 49)** | ( 34) |
| | **1 709** | 6 740 |
| Cash available for investment | **10 300** | 10 174 |
| INVESTMENT | | |
| Fixed asset acquisitions | **6 229** | 9 150 |
| Proceeds from disposal of equipment | **( 22)** | ( 6) |
| Proprietary software | **1 117** | 510 |
| Short-term deposits designated to fund pension liability | **719** | 637 |
| | **8 043** | 10 291 |
| INCREASE (DECREASE) IN CASH AND UNDESIGNATED SHORT-TERM DEPOSITS | **2 257** | ( 117) |
| CASH AND UNDESIGNATED SHORT-TERM DEPOSITS — BEGINNING OF YEAR | **629** | 746 |
| CASH AND UNDESIGNATED SHORT-TERM DEPOSITS — END OF YEAR | **$ 2 886** | $ 629 |

The accompanying notes are an integral part of these statements.

# Manitoba Data Services

## Notes to Financial Statements — March 31, 1987

1. ORGANIZATION

Manitoba Data Services is a Commission without share capital, established by an Act of the Manitoba Legislature June 15, 1979 to provide electronic data processing services to the Government of the Province of Manitoba and government agencies.

2. SIGNIFICANT ACCOUNTING POLICIES

*(a) Basis of Reporting*

The financial statements have been prepared in accordance with generally accepted accounting principles.

*(b) Revenue Recognition*

Revenue is recorded as services are provided.

*(c) Fixed Assets*

Fixed assets are initially recorded at cost and include certain leases, which in substance are purchases, capitalized at the lesser of fair value and the present value of the net minimum lease payments.

Depreciation and amortization of owned and leased assets are provided on a straight-line basis to amortize the cost over their estimated useful lives.

| | YEARS |
|---|---|
| Computer equipment | 3 to 4 |
| Furniture and fixtures | 5 to 10 |
| Leasehold improvements and proprietary software | 3 to 5 |

*(d) Pension Plan and Vested Sick Leave*

Pension and Vested Sick Leave costs (Note 4) are accrued and charged to income in the year to which they relate. Payments upon employee retirement or termination are charged to the pension and vested sick leave liability. Actuarial gains and losses on the pension liability, as determined by a triennial actuarial review, are amortized and charged to income over a three-year period.

3. MISCELLANEOUS REVENUE

| | (thousands of dollars) 1987 | 1986 |
|---|---|---|
| Miscellaneous Revenue Includes: | | |
| Equipment rentals | $105 | $173 |
| Program maintenance | 81 | 92 |
| Client education | 53 | 48 |
| Disaster recovery services | — | 48 |
| Provincial network | 42 | 33 |
| Other | 6 | 24 |
| | $287 | $418 |

4. PENSION AND VESTED SICK LEAVE

*(a) Pension*

All employees of the Commission are required to contribute to the Manitoba Civil Service Superannuation Fund at prescribed rates for defined benefits. The December 31, 1983 triennial actuarial report showed the Fund to be in a sound surplus position. The December 31, 1986 actuarial report is anticipated to be available for reference in the next Annual Report.

The Commission is required to reimburse the Superannuation Fund for 50 percent of payments made to retired employees. The actuarial present value of this obligation determined in accordance with the formula contained in the triennial actuarial report, including provision for increases in pensions due to increases in the cost of living, at March 31, 1987 is $4 454 000 (1986: $3 735 000).

A portion of the funds on deposit with the Minister of Finance, Government of the Province of Manitoba has been designated by the Commission in an amount sufficient to fully fund the pension liability. Interest earned on these designated funds is included in interest income.

*(b) Sick Leave Vesting*

A portion of each employee's unused annual sick leave allowance is vested payable on termination of employment. The vested amount as at March 31, 1987 is $486 000 (1986: $401 000).

5. ADVANCE FROM THE GOVERNMENT OF THE PROVINCE OF MANITOBA

Principal and interest at 10% repayable $1 796 128 per annum through 1989.

| | (thousands of dollars) 1987 | 1986 |
|---|---|---|
| BALANCE — BEGINNING OF YEAR | $3 602 | $5 095 |
| Prepayment of principal | 1 940 | — |
| | 1 662 | 5 095 |
| Principal due within one year | 29 | 1 493 |
| BALANCE — END OF YEAR | $1 633 | $3 602 |
| INTEREST EXPENSE | $ 375 | $ 645 |

# Manitoba Data Services

## 6. FIXED ASSETS

(thousands of dollars)

| | 1987 | |
|---|---|---|
| | Cost | Accumulated Depreciation and Amortization |
| Computer equipment | | |
| — Owned | $10 836 | $5 776 |
| — Capital lease | 9 496 | 2 366 |
| Furniture and fixtures | 817 | 377 |
| Leasehold improvements | 794 | 320 |
| | $21 943 | $8 839 |

| | 1987 | 1986 |
|---|---|---|
| | Net | Net |
| Computer equipment | | |
| — Owned | $ 5 060 | $ 1 426 |
| — Capital lease | 7 130 | 8 126 |
| Furniture and fixtures | 440 | 435 |
| Leasehold improvements | 474 | 330 |
| | $13 104 | $10 317 |

## 7. LEASES

(a) Future minimum payments under capital (computer equipment) and operating (office rental and computer equipment) leases, together with the present value of the net minimum payments under capital leases, are as follows:

(thousands of dollars)

| Years Ending March 31, | Leases | |
|---|---|---|
| | Capital | Operating |
| 1988 | $ 2 582 | $2 243 |
| 1989 | 2 239 | 2 049 |
| 1990 | 2 159 | — |
| 1991 | 2 060 | — |
| 1992 | 1 334 | — |
| Subsequent years | 8 | — |
| Total minimum lease payments | $10 382 | $4 292 |
| Less interest element (Weighted Average 11%) | 2 004 | |
| Present value of net minimum lease payments | 8 378 | |
| Less principal due within one year | 1 691 | |
| Capital equipment leases payable | $ 6 687 | |

(b) In January, 1986 the Commission entered into a sixty-month operating lease agreement for a 3090-200 processor. This lease is terminable by the Commission after thirty-six months upon payment of a termination fee ($438 000) equal to three months lease payments. Management anticipates that, at the end of the thirty-six month period, the processor shall be returned to the lessor; accordingly, the $438 000 termination fee is being charged to operations over a thirty-six month period.

(c) A second 3090-200 processor was installed in March, 1986 under a sixty-six month capital lease.

## 8. LONG-TERM ACCOUNTS RECEIVABLE

Term financing is extended to clients for the purchase of computer equipment and for systems development. Principal amounts receivable within one year of $26 000 (1986: $125 000) are included in current accounts receivable.

## 9. HEALTH-CARE INITIATIVE PROGRAM EQUIPMENT

Long-term financing is being arranged with the Department of Finance, Government of the Province of Manitoba for a Unisys Model A12 computer system received March 31, 1987. Manitoba Data Services will initially utilize this Unisys system for the Manitoba Health Services Commission (MHSC)/Unisys health care initiative program. In accordance with a letter of understanding provided by MHSC, Manitoba Data Services is guaranteed the recovery of costs related to the operation of the Unisys system for the health care initiative program. No depreciation or amortization of the Unisys system was charged in the current year.

## 10. RELATED-PARTY TRANSACTIONS

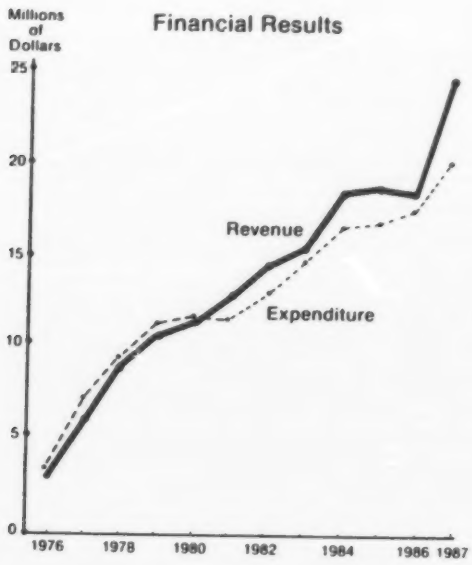
Substantially all revenue earned by the Commission and related accounts receivable are from departments of the Government of the Province of Manitoba, its Crown corporations and agencies.

## 11. COMPARATIVE FIGURES

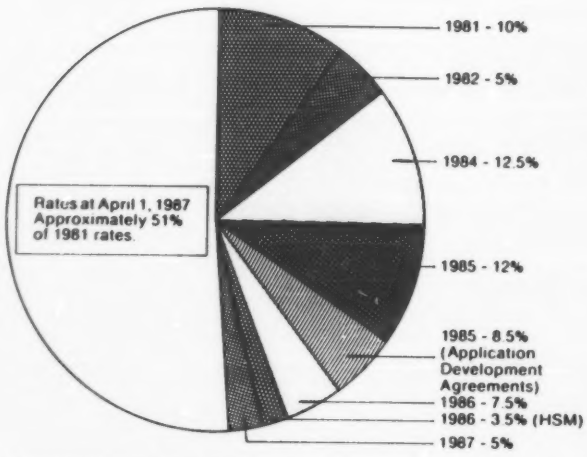
Certain of the 1986 figures have been restated consistent with the 1987 presentation.

# Manitoba Data Services Historical Data

## Financial Results

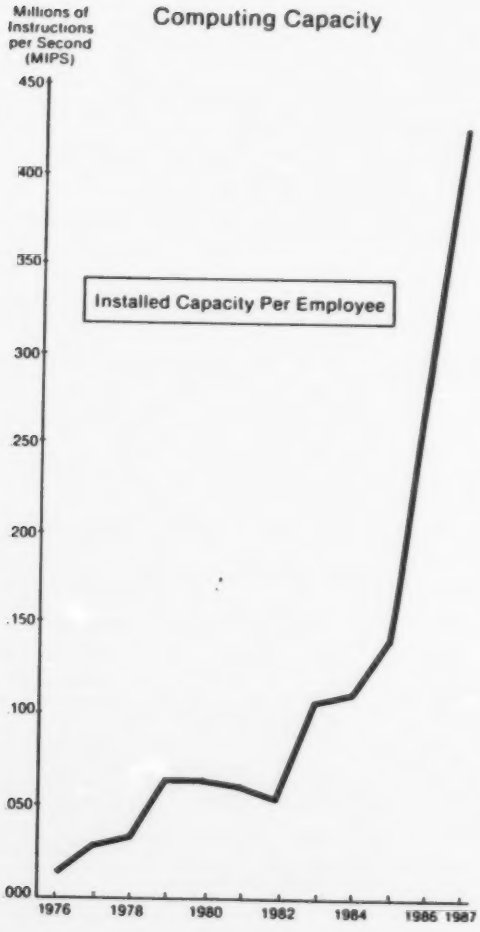



## Rate Reductions

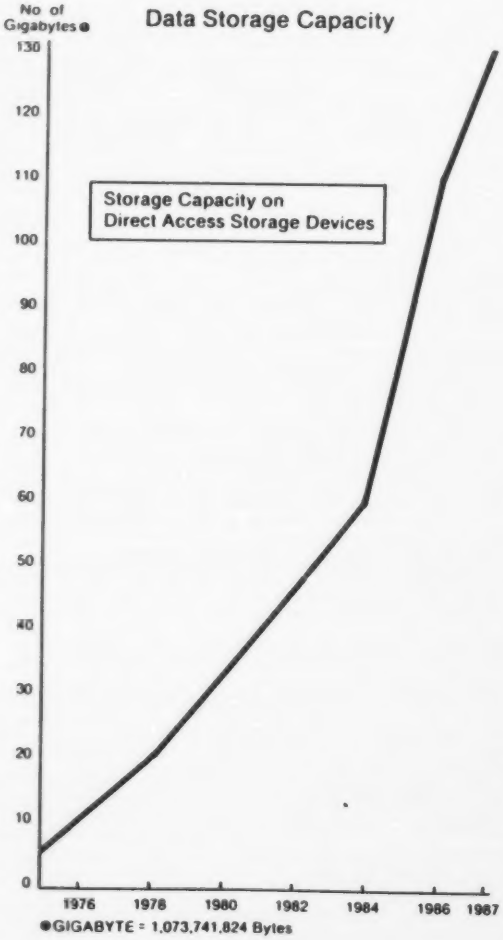

1981 - 10%
1982 - 5%
1984 - 12.5%
Rates at April 1, 1987 Approximately 51% of 1981 rates.
1985 - 12%
1985 - 8.5% (Application Development Agreements)
1986 - 7.5%
1986 - 3.5% (HSM)
1987 - 5%

Cumulative Effect of Rate Reductions and other Cost Savings introduced since 1981

## Computing Capacity




## Data Storage Capacity




●GIGABYTE = 1,073,741,824 Bytes

# Manitoba Data Services in Review

This fiscal year at Manitoba Data Services was characterized by advancements in computer technology and in the development of improved processes for delivering the Commission's services.

Early in the year the Host Connect concept was announced through the introduction of a new publication. This comprehensive "Host Connect" booklet contains specifications which facilitate planning for host-compatible hardware, and assists clients in dealing with computer equipment vendors. "Host Connect" outlines the functional categories of products offered at MDS, the subsystems through which each product can be accessed, and the communications specifications required to access those subsystems.

End-user seminars, introduced successfully in fiscal 1986, were expanded to include a wider range of subjects. Clients were offered seminar-type introductions to several topics including report writing, computer graphics, personal computer connections to the MDS host, spreadsheets, and systems development.

**MDS Staff and Workers Compensation Board Data Processing Group in Seminar.**

Disaster Recovery capability, as an ongoing activity, was enhanced in several ways. A third successful test of the recovery facility in Chicago was conducted in July 1986. During the test a client payroll system and accounts payable system, as well as MDS' own payroll system were run at the Chicago site. MDS developed a general purpose Disaster Recovery Utility (DRUT) to automate the backup and restoration of MDS and client applications stored on MDS storage devices. Three publications outlining aspects of disaster recovery were made available. The first, a general overview of disaster recovery explains the philosophy and processes of disaster recovery; the second, a DRUT User's Guide, provides detailed procedures for clients planning to use the backup facility; the third is a planning checklist for clients preparing to participate in the MDS Disaster Recovery Program.

During fiscal 1987 the Commission conducted an internal Employee Opinion Survey to gather employee opinions on a range of topics including working conditions, internal communication, advancement and promotion, benefits, and employee recognition. Employees were asked to express their opinions on the level of importance to them, and their degree of satisfaction with 76 topics. The results, compared with those of a similar 1983 survey, showed a significantly higher level of satisfaction among employees.

The Commission continued its support of the United Way of Winnipeg annual appeal for funds. For the third successive year, Manitoba Data Services staff won a United Way Leadership Award for the high level of employee participation. Over 90% of employees again personally contributed.

MDS also continued its participation in two student employment programs. Summer employment was provided for 16 students of computer science at the University of Manitoba, and the computer programming course at Red River Community College. This is part of the province's STEP (Student Temporary Employment Program). The Commission also maintained two positions for honours students in the University of Manitoba's Computer Science Cooperative Option program.

A new computer-based training (CBT) system — PHOENIX Presentation System — was announced during the year, replacing an earlier system. An expanding library of CBT courses covering a wide range of computer-related topics is maintained for client use. Topics range from basic computer terminal operation to use of fourth generation programming languages such as FOCUS. All CBT instruction is self-paced by the trainees via computer terminals in clients' offices.

A new data storage management system — HSM (Hierarchical Storage Manager) — became operational at the central computing site in October, 1986. Based on a hierarchical concept of storing data at different "levels" based on frequency of access, HSM allocates data to either Primary or Level 1 storage. Infrequently-accessed data is compacted and the data sets compressed, requiring less storage space at Level 1. This results in lower data storage costs for clients. When required by clients, Level 1 data is immediately moved back to Primary Level for access.

MDS' electronic office system, DISOSS (Distributed Office Support System) was significantly enhanced this year. Substantial improvements were made to the document creation, electronic mail delivery, message filing and forwarding, and distribution list features. Personal Services/PC (PS/PC) was introduced within the DISOSS

system. PS/PC enables clients to integrate personal computers into an office network to exchange information with other workstations supported by DISOSS. This improves the efficiency of personal computers by eliminating many of the problems associated with PC-to-PC communications.

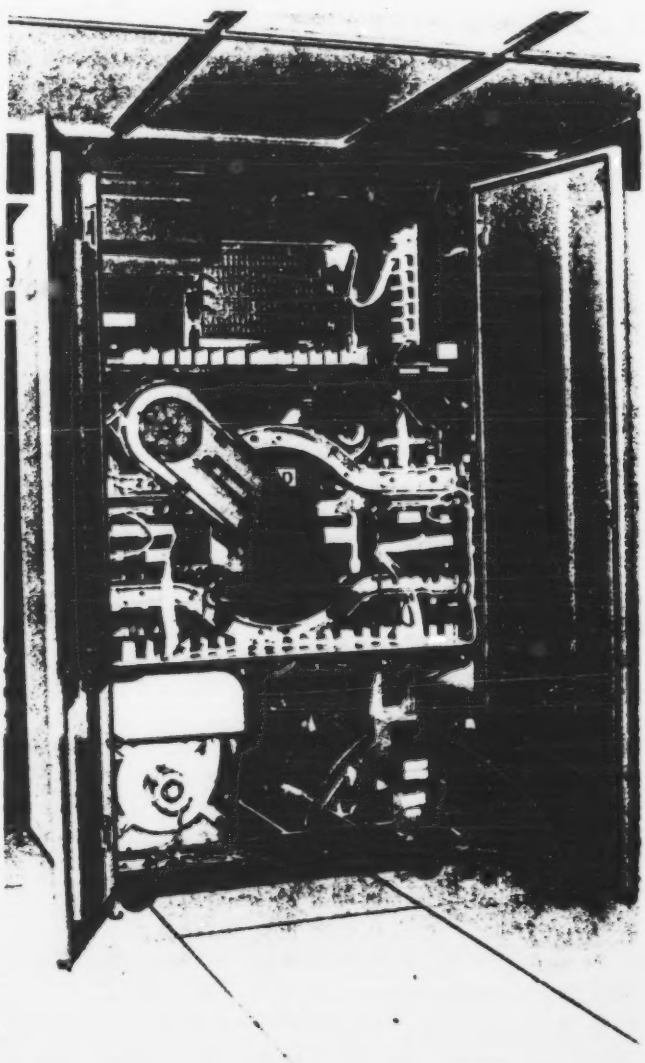
**Concordia Hospital Switchboard Operator has access to computerized admissions, discharges and transfers system for current patient location and status.**

Following an evaluation by eight client offices and by MDS, FOCCALC, a member of the FOCUS family of advanced programming and data management products, was added to the product line. FOCCALC may be used for the display and analysis of financial, statistical and other numerical data. Particular applications include budgeting, decision support, data entry, data analysis, and project management. FOCCALC may be used either as a personal spreadsheet with data entered directly by the user, or as an integral part of FOCUS. FOCCALC provides an attractive solution to personal computer users whose data management needs are outgrowing their PC capacity and who are finding a need to share data.

In collaboration with its VSPC (Virtual Storage Personal Computing) clients MDS developed an alternative environment for all VSPC users. The alternative — JEF (Job Entry Facility) — provides similar functions to the discontinued VSPC. To ensure a smooth transition by users from VSPC to JEF a comprehensive program was developed by MDS for its clients. Included in the program were the development of three migration utilities, no charge processing for VSPC migration related file transfer, application conversion and testing, as well as a series of no charge CBT and classroom training courses. Approximately 250 client staff took advantage of the CBT courses, and 400 attended the classroom training courses.

MDS helped form an End User Computing Strategy Development Working Group during fiscal 1987. A major purpose of the group is to ensure that MDS obtains input from its clients on the range of products and services it offers the business professional. The group comprising representatives from MDS client organizations, has published a document entitled "End User Computing Terms of Reference". In it they define end user computing, identify and define generic functional areas of end user computing, and establish selection criteria for product suitability. The group expects the terms of reference document to evolve and to assist in directing the establishment of improved product and service offerings that will fulfill clients' current and future end user computing requirements.

MDS is committed to providing the highest standard of service to its clients through the application of computer technology and electronic office systems delivered through its host computer and supported by its skilled and dedicated staff.



**High technology applied to information processing at MDS: Model 3380 Direct Access Storage Device (DASD) unit.**